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Effect of Moderate Exercise on Breast Milk Leukocytes in Exclusively Breast-feeding Mothers

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Abstract: Although it is well documented that moderate exercise enhances cell-mediated immunity, effect of moderate exercise on breast milk leukocytes has not been studied yet. So, the aim of this study was to investigate the effect of moderate exercise on breast milk leukocytes in exclusively breast-feeding mothers.Forty-seven exclusively breast-feeding mothers at 1st to 5th month postpartum were randomized into two groups.Group A received breast-feeding and nutritional counseling and engaged in moderate aerobic exercise for 4 weeks with a total of 12 sessions. Group B received only the same breast-feeding and nutritional counseling for 4 weeks. Both groups were evaluated pre and post-intervention. The outcome measures were maternal anthropometric parameters and breast milk total and differential leukocytes counts.Post-intervention,there was a non-significant difference in the maternal anthropometric parameters ($P > 0.05$) while there was a highly significant increase in breast milk total and differential leukocytes counts ($P = 0.001$) in favor of group A.There was a significant inverse relationship between maternal anthropometric parameters and lymphocytes count in group A. This study explored that moderate aerobic exercise during exclusive breast-feeding was associated with increased breast milk total and differential leukocytes counts.

Keywords: Moderate exercise, exclusive breast-feeding, breast milk, immune, leukocytes.

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